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OBSERVATIONS

ON THE TREATMENT OF

Epilepsy;

BY

A. A. Williamson, M. D.

(Member of the American Medical Association; formerly Chief of the Medical Clinique in the Medical Department of the University of New York.)

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Although the chief purpose of this article is to give an account of the mode of treatment which, during many years' experience, I have found most successful in Epilepsy, I will preface it by a brief description of the leading features of the disease.

Epilepsy proper, is a functional disease of the nervous centres, in which complete temporary loss of consciousness is a distinguishing feature.

This affection is not the result of organic disease, but of some functional disturbance, the exact nature of which the most thorough investigation has hitherto failed to determine.

The severe forms of this disease are characterized by spasms, which may be continuous or intermittent.

In many instances these attacks are preceded by a warning; in my experience this occurs in about one third of the whole number of cases.

These warnings are variable in their character, and may precede the attack several hours, or only by a few seconds.

The sensations experienced by the patient are manifold. One group of warnings is confined to one side of the body; another is referred to the viscera; nausea, choking, dyspnœa, or peculiar sensations about the

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heart. Sometimes a rushing feeling precedes the spasm; sometimes a twisting of a limb, or the head to one side; sometimes a twitching of some part of the body, or a tingling like pins and needles.

Frequently there are variations in sight, hearing, taste, and smell. Different colored lights flash before the eyes, or unusual sounds are heard in the ears.

Changes of disposition are noticed—irritability—moroseness.

The severe attacks are sometimes preceded by a cry; a peculiar sound, hardly imitable by the human voice. In other cases, the onset is accompanied by a sound of choking and strangling, most painful to listen to. In the majority of cases, however, loss of consciousness occurs without any premonitory symptoms being noticed. The patient suddenly falls, with pale face and dilated pupils. Muscular contraction immediately follows, with fixed, staring eyes. The face darkens—the veins are distended. So great is the congestion that rupture of a blood-vessel in the brain sometimes occurs, followed by death with the symptoms of apoplexy. After a few seconds, though seeming much longer to the observer, the continuous spasm is broken, and the intermittent ones succeed. The muscles rapidly contract and relax; the tongue is often bitten; in rare instances bones are fractured; the patient froths at the mouth, and involuntary evacuation of the bowels and bladder frequently occurs. The remissions increase in length until the spasm ceases.

Upon recovering consciousness, the patient, in some instances, rises and moves about much the same as before the attack; in other cases, confusion, stupor, and even delirium follow. The desire to sleep after an attack is, however, almost universal.

In those cases in which the attack is preceded by a warning, effectual measures may sometimes be taken to ward off the spasm. A sudden shock; the inhalation of ammonia, or nitrate of amyl; placing the feet in hot water, or arresting the circulation in a limb, will occasionally prove effective.

Minor attacks of Epilepsy vary much in character. They may be so slight that their Epileptic nature may be overlooked. In the most common form, there is a transient loss of consciousness, with or without muscular relaxation, and always without muscular contraction. The patient suddenly stops, drops whatever he may be holding, and, if standing, sometimes falls—but there is no real spasm, and no noticeable after effects—the patient may even continue a sentence or action begun before its occurrence.

Sudden starts or jerks, *without* loss of consciousness, cannot be ranked as Epileptic seizures.

A condition called *automatism* sometimes follows both the mild and severe seizures. The patient, though apparently conscious, does things of which he has no after recollection. He is really unconscious—he attempts impossibilities—sometimes exhibits rage and violence—may even take life.

Regarding the frequency of the attacks there is the widest variation. There may be no more than one, two, or three in a year; there may be twenty in a day.

Frequently the disease commences with the slight seizures, no severe ones occurring for months. Again, there may be a series of spasms, followed by a long interval; and, as a rule, it may be observed, that, the severer the convulsions the less frequently they occur. In any case, it is to be expected that the attacks will increase in frequency as time goes on.

In many instances, there is a periodicity about the attacks, they occurring at about the same interval, whether of the day or week. The early morning is a favorite time; equally so, the hour after retiring.

Regarding the *pathology* of this disease, little of positive value has been discovered. When death occurs during an Epileptic seizure, the post-mortem shows no change in any part of the body sufficient to account for the disease. It would seem that the nervous system is in an abnormally irritable state, in which the slightest functional disturbance precipitates a nervous spasm.

Putting aside those cases in which the disease comes by inheritance, which, in my experience, covers about twenty per cent. of the whole number, we find, upon careful inquiry, that the relatives of the patient are seldom able to advance any reason, adequate to account for the first seizure.

Whether inherited or acquired, a predisposition undoubtedly exists in these cases; and the same exciting

cause will not produce the same result in cases where that predisposition does not exist.

When an infant has a convulsion, from whatever cause, it should be taken for granted, at once, that this predisposition exists; and treatment should be entered upon directly; *not treatment by dosing*, but careful and constant attention, to the end that every possible *exciting cause* may be warded off.

Exciting causes, in young children, are numerous. Fright, worms, teething rarely, the eruptive fevers, especially scalet fever, and most frequent of all, in my judgment, *digestive derangement*.

In adult cases, tobacco, self abuse, blows and falls on the head, and prolonged mental anxiety, all rank high as exciting causes. But my experience has taught me that the one exciting cause above all others, both in the young and old, is *abuse of the digestive organs*.

Given a nervous system of not quite normal resisting power, what more probable cause of convulsions than a stomach overloaded with indigestible food, or an intestine distended with impacted feces? In *no case* can good health exist where such a condition of the digestive organs prevails, and, where there is a *predisposition* to convulsions, they will surely follow. As a rule, children are over-fed. Often, fortunately, nature intervenes, and relieves the distended stomach by vomiting. Constipation is sometimes overlooked, for mothers are occasionally thoughtless, and nurses careless.

All who have to do with Epileptics know how frequently the attacks accompany or follow a disordered stomach.

What is the *prognosis* in this disease?

Every one recognizes the fact that this disease, though not commonly fatal to life, is, if not cured, most certainly fatal to all hopes of future happiness or success.

Is there any probability of the attacks ceasing without treatment?

The *tendency* of the disease is to perpetuate itself; each attack increases the liability to another, by rendering the nervous system less stable. Many have thought that attacks commencing in childhood might cease at puberty. I have never known such an instance. Marriage makes no difference, although in married women the attacks usually cease during pregnancy, to recur again after parturition.

Certain conditions are more favorable to recovery than others. They are more favorable if the patient is a female, and if the attacks did not commence until adult age.

The shorter the duration of the disease, and the longer the interval between the attacks, the greater the chance of recovery. The outlook is also much brighter if there is no considerable mental change. These points have a certain weight and value, regardless of special treatment. Of course, in all cases, the prognosis greatly depends upon whether there is or is not any *inherited* taint.

In the *treatment* of Epilepsy, the *exciting cause* is of little consequence unless it is still in operation and capable of removal.

Circumcision, for instance, has been successfully resorted to, but is of use *only* when the parts are abnormally formed, causing pain and inflammation.

What, then, is the best course to pursue, and what is the prospect of success, when no removable cause exists?

We know that, since the disease depends upon such a condition of the nerve centres as cannot be recognized by any means within our knowledge, we must treat symptoms—the chief of which is the convulsion. This makes it plain that the physicians' chief skill in these cases must come from *experience*—the *constant observation* of a large number of cases—a close study of constitutions and the effect of remedies.

Most sufferers from Epilepsy have been able, from time to time, to obtain temporary relief from the attacks; a recurrence, however, occurring sooner or later. *Is this recurrence preventable?*

If the attacks can be successfully warded off for months, and the patient kept in apparent perfect health, are we not justified in the inference, that, by a proper course of treatment, the period of immunity may be indefinitely prolonged? If a patient can be kept well for from six to twelve months, is it unreasonable to infer that a relapse is the fault, *either of the patient or the physician?*

Now if this relapse is due to preventable causes, what are they?

There are three directions in which we may look for reasons of failure of treatment.

1st. To the patient's constitutional peculiarities, power of tolerating medicines, etc., lack of knowledge of which will surely lead to mistakes in treatment.

2d. To the condition of the digestive system; especially whether it is given more to do than it is capable of doing easily.

3d. To the question of personal habits, occupation, exercise, and personal discipline.

It is simply groping in the dark to attempt to treat a case of Epilepsy until fully posted on all these points. For instance, a dose of medicine which will profoundly affect one person, will have little or no effect upon another. In this disease, it is all important that the *right dose* should be administered—too little or too much will be worse than useless.

I have already spoken of the importance of caring for the digestive functions. No case of Epilepsy can be cured if the stomach and bowels are overtasked. A very trifling derangement will destroy the physical balance and bring on an attack. An Epileptic is always, so to speak, balancing on the verge, ready to topple over into a convulsion at the slightest provocation.

There are four rules in connection with the digestion, to which I enforce *strict adherence:*

1st. Eat slowly and moderately.

2d. Avoid everything indigestible.

3d. Eat nothing between meals.

4th. Ensure a free movement of the bowels daily.

An abnormal appetite is common with Epileptics. Food sufficient for health and strength should be given, but none merely to gratify the appetite or fancy.

Such patients as I take into my own house, during treatment, eat at my table, and are furnished with the ordinary variety of plain, substantial food. No veal or pork is admitted—no coarse vegetables, no pies, cake, or fresh-baked bread. My rule with patients is, to avoid everything that can *possibly* disturb the perfect working of the entire system.

As regards exercise, the physicians' judgment must be the guide. As a rule, liberal exercise, carried even to the point of fatigue, is advantageous. In a long experience, I have never seen a convulsion brought on by fatigue.

Sluggish, inactive patients, with poor circulation, and cold extremities, never thrive. Those who are active, erect, quick in their movements, fond of out-door exercise, are the ones who respond most readily to treatment, and are the least affected by the depressing effects of the remedies. A patient with pallid face, round shoulders, shuffling gait, and a disposition to lie around the house, has little chance for recovery.

Constant occupation, of some sort, keeps the mind occupied—a great point in this disease—stimulates the

circulation, and imparts a healthy tone to the whole system.

Another point worthy of notice, as helping to ensure success in treatment, is personal discipline. Epileptics are apt to be self-willed, obstinate, easily angered, and regardless of consequences; and stand in especial need of the controlling influence of a strong mind and a firm hand.

Parents, through sympathy, are apt to be over-indulgent. The child soon comes to think that every wish must be gratified, and to rebel if it is not. Such a child should be treated with unvarying kindness, but absolute firmness; and never suffered to contest a reasonable requirement. As in most cases the memory, judgment, and reasoning powers are more or less impaired, he yields more readily to passion or temptation, and has a lessened appreciation of his fault.

The rather exceptional success I have had with cases received into my own house during treatment, has been due chiefly to the close and unremitting attention I have given them, on the lines laid down above; combined, of course, with appropriate medication. The most skillful physician, who sees such cases in office practice, cannot do them or himself justice. This accounts to a great extent, for the large percentage of failures to give more than temporary relief, and for the generally expressed belief that the disease is incurable.*

*A full history of several successful cases was given in a paper read by me at the last meeting of the American Medical Association.

The peculiarities of the disease render it almost or quite impossible for the patient to be treated successfully at home. Every day, points arise as to diet, exercise, or indulgences, which call for the judgment and decision of the physician.

Dr. Gowers, physician to the London Hospital for Epileptics, well says:

"The greatest advantage to the patient results from a complete change of moral atmosphere, by removal from home influences, which are often unfavorable by reason of petty annoyances, over-indulgences, or the unwise solicitude of friends, which fosters instead of controlling the disease. Such a change, if the patient is placed in experienced hands, increases the prospect of cure at least one hundred per cent."

Under such intelligent supervision, every exciting cause of attack is foreseen and warded off, and the nervous system is kept under control by the administration of the most effective remedy for the individual case. Thus, in time, the Epileptic *habit* becomes broken, for the convulsions of true Epilepsy may justly be called a habit. Where a predisposition exists, either hereditary or acquired, the first convulsion, however caused, paves the way for a second; and the nervous system soon acquires a *facility* for such nervous explosions, so that slighter and slighter causes suffice to produce them.

The different remedies used in this disease require no lengthened description. Since the introduction of the Bromides, they have, with the majority of the pro-

fession, almost entirely superseded all other remedies. Not only the prescriptions of the regular profession, but all the advertised nostrums in the country, depend upon the Bromides for whatever virtue they possess. The remedy deserves its reputation, but it has been used with great lack of knowledge and discrimination.

There are many persons who are utterly unable to tolerate this remedy in any form. Many instances have come to my knowledge in which acute attacks of mania have resulted from its injudicious use.

But where it is well borne by the system, it is undoubtedly the best remedy we have. It must be carefully handled—the system studied and adjusted to the proper dose. Over-dosing causes the patient to become dull and lethargic, with cold extremities and feeble pulse. Often a semi-imbecile condition is reached, with drawling speech and dribbling mouth.

A disagreeable eruption, *acne*, often occurs. It is pustular in character—a red swelling, with a small point of suppuration. Small doses of Fowler's Solution will do much to prevent this.

Combination with other remedies often renders the Bromides more acceptable to the stomach, and seems to increase their beneficial effect.

Digitalis, Belladonna, Valerian, and Iron have been so used with advantage.

The tincture of iron should never be used, on account of its irritant properties.

Zinc is a remedy of long standing, and is sometimes

useful, especially where there are any symptoms of St. Vitus' Dance.

No remedy that causes digestive disturbance can be continued.

Surgical operations for the cure of Epilepsy have been often resorted to, but seldom with success. Trephining the skull over the seat of a depression, or an abnormal growth, has sometimes resulted favorably, but experimental operations are unworthy of consideration.

It is interesting to note that the severer the spasms, the easier, as a rule, they are controlled. Where the two forms co-exist, the slight attacks often persist after the severe ones have entirely disappeared.

In treating a case of Epilepsy, every effort should be made to counteract the tendency to mental impairment. It is my custom to devote a portion of every day to the instruction of my younger patients, taking care not to overtask them in the slightest degree. Great care should be taken, also, to prevent any association with inferiors, or with evil-minded persons.

It is a great satisfaction to know, that, in those cases in which a cure is effected, the mind regains, gradually, almost, if not entirely, its normal condition.

New London, Conn., October, 1895.

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